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# Walk with Me: a Telepresence Study of Mediated Tours

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WALK WITH ME: A TELEPRESENCE STUDY OF MEDIATED TOURS

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# WALK WITH ME: A TELEPRESENCE STUDY OF MEDIATED TOURS

ERIKA K. GRESS

## ABSTRACT

The subsequent study examines variations of self-guided tour mediums in relation to telepresence, transportation, and satisfaction. Three conditions were used to explore the relationships. Those conditions were audio only, audio and visual, and map self-guided tours of a portion of Euclid Avenue adjacent to Cleveland State University. The audio condition yielded the highest mean scores of the three conditions on all analyses. Condition was found to significantly impact the report of ‘worthwhile’, a subscale of satisfaction. No other hypotheses resulted in significant findings. Significant differences were seen between the conditions participants report of ‘worthwhile’. The practical and theoretical impacts are discussed in the following chapters.

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## CHAPTER I

### INTRODUCTION AND LITERATURE REVIEW

“Cyberspace could be the next big holiday destination. No more worrying about excess baggage, now to get away from it all, all you need is broadband. Dream holidays are now within the reach of millions more people” Gaskell (2007, p.1).

The year 2008 saw the start of an economic recession that has impacted millions in the U.S. Historically “...the impact on travel during periods of economic recession is not so much a marked decrease of total trips but a reduction in the amount of budget allocated to travel; people take trips closer to home and seek more travel bargains” (Inskeep, 1988, p. 362). Virtual tourism is emerging as an avenue that is cost effective.

The popularity growth of virtual tourism has grown due to the ease of access and thanks to sites like Second Life (an online community) that offer individuals a taste of what other countries and areas are like without ever leaving home. “Technology's share of consumer spending compared to other durable goods has never been this high going back to the 1960s," said Shawn DuBravac, Consumer Electronic Association's chief economist (2009, p.1). The availability of technology to the masses is becoming more affordable and because of that industries have started using new technology as a way to attract consumers. It is not unrealistic to “visit” a country without ever leaving your own

home. People are now able to be acquainted with places that they would otherwise not be, through the experience that technology can give them. New technologies offer mediated experiences of destinations.

Tourism is a multi-trillion dollar industry worldwide and is expected to grow to more than \$13 trillion over the next ten years (World Travel & Tourism Council, 2007). The average growth of the tourism industry has been 5 percent per year. The increase in availability of travel options has broadened the variety of destinations available and the people who are able to afford travel. No longer do individuals have to board a plane, drive a car or ride a boat to a location, the experience can take place at home through technology. It is possible to visit an exotic destination using an avatar (a digital representation of the self) to experience all that the place has to offer and never even change our pajamas.

Such technology may impact traditional tourism, when people choose to physically travel to the destination; the choices for how to experience the destination have broadened. One such technology is the use of tours that are downloadable to a MP3 player of the individual's choice or tours preloaded on rented equipment for easy use. Tourists can take, for example, traditional guided tours, bus tours, self-guided tours or not take a tour at all. The self-guided tour can take several forms. For example, a simple map can allow the individual to go where he or she would like and in whatever order and time is preferred. Also, we can now have self-guided tours of a city with our MP3 player/iPod guiding the way. The shift in the industry to technology and the financial strength of the industry begs the close examination of all aspects. Here the focus will be self-guided tours. This study will aim to advance the research pertaining to the interaction of

telepresence and the tourist experience. Using the sense of immersion, the loss of full awareness of mediation and the transportation through narrative as a starting point to uncover what factors create an experience that is satisfying for the tourist.

### *Rationale*

The growing popularity of the Internet and the ease of downloading information to various mobile devices have spurred the tourism industry into utilizing technology. The sudden shift toward technical applications has caused the haphazard adoption of various technologies without knowing what is best suited for the type of experience that is desired. Only a handful of studies (Crang, 1997) have empirically tested the relationship between tourism, the tourist experience and technologies.

In order to fill a void in research the proposed study will implement telepresence as a theoretical measure and guiding empirical foundation for how three formats of self-guided tours can impact the tourist experience. Telepresence is the concept that attempts to explain the feeling of non-mediation when using a medium (Lombard & Ditton, 1997). The application of telepresence technologies in the realm of tourism has received little attention in the telepresence literature as of now. In recent years, the European Union (EU) has funded a project that has a component that studies the integration of telepresence in urban environments including locations with tourist allure (see IPCity project). This concept will be fleshed out more in the following section.

The rapid growth in technology warrants investigation to assess the effects the individuals experience has on satisfaction and seek out ways in which to maximize the pleasure of the event. Each tourist experience is unique. This unique experience of the tourist is often referred to as the 'tourist gaze' (Urry, 2002). Some tourists have the sole

purpose of enjoying themselves, others want to discover new a new world that they never looked at before, and yet still others seek out knowledge about the world in which they live. Regardless of the desired experience technology should be used to optimize the experience not detract from it. The concept of telepresence will be used as a theoretical basis of understanding what factors technology can be implemented to create the optimal experience of tours. The use of tours as a means to understand, explore, enjoy and experience a destination is a common tool at the tourists' availability. It is because of that commonality that tourists and tourism in this study will focus tours, and yet more specifically on self-guided tours.

Tourism is a multi-billion dollar industry worldwide. As such, it could benefit as an industry from more research being conducted. The most economically beneficial research should focus on what will enhance the tourist experience. By enhancing the experience the likelihood of repeating it will increase thus generating an increase in revenue. By using telepresence as the guiding concept for tourism research the current literature will be expanded. Tourism is a new area for application of telepresence.

The present study aims to address the issue of satisfaction and enjoyment from the self-guided tour. The study focuses on the differences in mediums effects on the reporting of satisfaction. The remainder of this chapter provides an overview of the related research including telepresence, transportation, satisfaction and tourism. It also lays out the hypothesis tested. Chapter II describes in detail the methodology used in attempt to begin to answer the hypotheses. Chapter III reports the results of the statistical analysis. Chapter IV discusses the issues, possibilities and the impacts of this study.

### *Literature Review*

The current research in telepresence, transportation and tourism provide the basic starting point and inspiration for the present study. Each concept has been examined and the relevant information has been presented here in this section. Telepresence will help to examine how the individual experiences the tour and how much each individual is engulfed in the experience. Transportation is used also to explain how the individual's experiences the tour. Transportation varies from telepresence by focusing on the use of narrative to aid in drawing the individual away from the everyday and into the experience. Tourism must be explicated in the following section because, although it is a concept that is 'common' knowledge, it needs to be empirically defined as it is used here. Satisfaction is also empirically explained so that a clear understanding of the measures of satisfaction can be obtained.

### *Telepresence*

“[Tele]Presence is a relatively new concept, but its emergent academic importance is hard to overlook” (Tamborini & Skalski, 2006) The concept of telepresence has been a growing field of research in the last decade. In simple terms, telepresence is the feeling of “being there” that is experienced through some type of medium. The individual using the technology suspends the knowledge that the experience is not happening in the physical reality around the individual but through some type of technology (Lombard & Ditton, 1997).

Telepresence or presence is a loss of awareness of the technology the person is experiencing. It is a feeling of non-mediation (Lombard & Ditton, 1997). The media user becomes so engulfed in the experience that the consciousness of the existence of the

technology melts away. “[Tele]presence refers to the sense of being in a location or in a group (Picciano, 2002), and there are distinctive types of telepresence that can project and perceive.” (Lui, Tsang, Kwan, Ng, Cheung, & Choy, 2007, p. 1021).

Much debate surrounds telepresence as a concept and there are different definitions. The concept of ‘presence’ has been used to explore; the simple explanation of physical proximity (not involving technology), as reacting to the external world or what feels like it (technology involved or not), and as the use of technology in an experience (technology) (Lombard & Jones, 2007). Lombard (2008) has argued that when studying use of technology, researchers should use the term telepresence instead of presence so that it may be decipherable from other forms of presence (Lombard, 2008). Lombard and Jones (2007) devised five questions that can be posed to decide where each definition fits into the concept presence. The questions are; 1. Is technology involved in the phenomenon? 2. What is the phenomenon a property of (and is the property objective or subjective)? 3. What is the source of the stimuli?, 4. How is technology perceived?, and 5. What aspect of phenomenon is of interest? (Lombard & Jones, 2007). Within each categorical way of using the term presence (no technology, technology or not, technology must) there are subcategories and splits in the focus.

Some researchers (Heeter, 1992; McCall & Braun, 2008; Slater & Wilbur, 1998) study telepresence from a strictly technological vantage point this stand point minimizes the effect of the influence of the individual’s experience. The others approach telepresence from a less computer science influence instead they use a social science focus. From the social science oriented vantage point the focus remains on the mediated experience but the effects on the individual and the psychological processes take the



forefront of interest (Lombard & Ditton, 1997). The conflict in the use and definition of the term stems from the fact that research on telepresence is multi-disciplinary (Lombard & Jones, 2007).

Also, under debate are the types of telepresence that are experienced. Some believe that dimensions of telepresence are spatial presence, social presence, and self presence (Wirth, Hartmann, Böcking, Vorderer, Klimmt, Schramm, Saari, Laarni, Ravaja, Gouveia, Biocca, Sacau, Jäncke, Baumgartner & Jäncke, 2007; Lee 2004). Others would debate this division saying that other forms exist or other names for the types should be used, such as environmental presence, and personal presence (Heeter, 1992 ). There are also sub-components such as interactivity and immersion. The concept of presence should always be carefully explicated so that no matter what school of thought or label is implemented (although a standard is ideal) so that it is easily comprehensible and decipherable from other forms.

### *Sensory*

When engaging in media use the number of senses used to experience the medium and content vary. Reading a book requires the reader to use his or her eyes to take in the experience where as virtual reality caves can draw on sight, touch and hearing. In terms of telepresence, senses can play a vital roll in encouraging the feeling of being in the environment. “The more senses a media environment activates in its users the more likely it is that the receivers will feel like they ‘are’ in the environment” (Wirth, et al, 2007, p. 496). Mediums that offer more sensory inclusion would promote telepresence because it induces a feeling of being in the environment. “The underlying assumption is that the more sensory information a particular media product emits, the more likely it is that

users' attention allocation will persist, as the media product covers more and/or larger portions of the users' perceptual range" (Wirth et al, 2007, p. 500).

Selverian and Hwang (2003) compiled a study analyzing multiple research findings related to learning as affected by one-way sensory, one-way sensory/interactive or two-way sensory/interaction. One-way sensory was described as websites, TV broadcasts, audio, and visual websites. One-way sensory/interactive technologies consisted of some type of real-time interaction such as a face-to-face lecture. Two-way encompassed technologies that are capable of having feedback. For example, conferencing systems are two-way sensory/interaction. After compiling and analyzing the studies they concluded that individuals who reported high levels of spatial presence (most often seen with one-way) were more likely to have "high levels of achievement of lower-level learning objectives." (Selverian & Hwang, 2003, p. 519). Individuals who experienced two-way technology who reported high levels of social presence were more likely to have high levels of achievement of higher-level learning objectives (Selverian & Hwang, 2003). From these conclusions, in the context of the present study, it can be hypothesized that more robust technologies that evoke more senses will impact individuals on a much greater scale than technologies requiring more passive connection. Part of the tourist experience, as explained subsequently, is learning for the joy and pleasure of learning. If learning of higher-level objectives is more likely with more sensory involvement individuals who experience a tour with more senses engaged should learn more and therefore have a more satisfying tourist experience.

In the previous example the richness of the form played a large role in the depth of knowledge that was comprehended. The technologies that engaged more senses or

were richer contributed to the learning of higher-level concepts by the participant. The current study uses a more simple set of technology to compare the richness of the media to the level of telepresence. The forms of technology used in this study are discussed in subsequent chapters.

The current study follows the example of Lombard and Jones (2007) and examines telepresence as the involvement of technology. The International Society for Presence Research (2000) describe technology as “a machine, device, or other application of human industrial arts including television, radio, film, the telephone, computers, virtual reality, and simulation rides; traditional print media such as newspapers, books, and magazines; and traditional arts such as painting and sculpture.” For this study the phenomenon is subjective from an individual’s perspective. This means that each individual will have his or her own unique experience that is completely dependent on how they respond (Lombard & Jones, 2007). Here the experience will be based on external only stimuli. Meaning that the stimulus is not internally created (Lombard & Jones, 2007) instead it is created and presented for the individual by outside actors. The perception of technology will be seen from the vantage point that there is an inaccurate view of technology. This perspective is better defined by International Society for Presence Research (2002) in the Explication Statement: “[Tele]presence is a psychological state or subjective perception in which even though part or all of an individual's current experience is generated by and/or filtered through human-made technology, part or all of the individual's perception fails to accurately acknowledge the role of the technology in the experience. ... Experience is defined as a person's observation of and/or interaction with objects, entities, and/or events in her/his

environment ...." This view of telepresence is the most widely used in behavioral and social science research (Lombard & Jones, 2007). For the purpose of this study, telepresence as defined above as well as the sub-concept of immersion will be adapted and used.

### *Telepresence-Immersion*

Immersion is the feeling of being in surrounded by the technology without the awareness of the technology. The International Society of Presence Research states "...psychological immersion occur[s] when part or all of a person's perception is directed toward objects, events, and/or people created by the technology, and away from objects, events, and/or people in the physical world. Note that the person's perception is not directed toward the technology itself but the objects, events and/or people the technology creates" (ISPR, 2000). Immersion as discussed in the previous section has been referred to as a component of spatial presence. The sense of being in the created experience is immersion. For the self-guided tours immersion will be used to measure the feeling of being drawn into the audio, pictures and map.

### *Telepresence and Audio*

Audio has been found to contribute to the likelihood of telepresence. The more the audio reflects what the participant is observing the more likely the participant is to experience a greater sense of telepresence. Larsson, Vastfjall, Olsson and Kleiner (2007) found that the congruency of audio with what the participant viewed contributed positively with their report of telepresence. This means that when the sound provided matched with the visual (e.g. a video of birds with the sound of birds cherping) the participant's feeling of telepresence was higher than if the audio that accompanied a

visual was inconsistent (e.g. a video of birds with sounds of car horns and sirens). Other manipulations of audio have been conducted. Pettey, Bracken, Rubenking, Buncher, & Gress (2009) conducted a study of sound using a manipulation of the source of sound (speakers versus headphones) and Larsson et. al. (2007) also examined the space in which the audio was received (cathedral ceiling versus ordinary room). The exploration of audio on telepresence provides endless opportunity.

H1a: Individuals who hear audio commentary and see a visual presentation during a tour will report higher rates of immersion than individuals who only experience audio commentary during a tour.

H1b: Individuals who hear audio commentary during a tour will report higher rates of immersion than individuals who tour with a printed map.

### *Transportation Imagery Model*

The concept of transportation looks at the degree to which individuals are absorbed into a story or transported into a narrative world and suspend their own beliefs, and show belief changes that are congruent with the beliefs portrayed in the story (Green & Brock, 2000). This suspension of what is going on in the actual world or transfer of attention from the actual world is similar to that of telepresence. That being said, it is important to understand the difference between the two concepts. Transportation focuses on the story; where as the focus of telepresence is not necessarily on the narrative rather it is on the technology. Many people experience stories and become engulfed into the story line and lose awareness of their surroundings and themselves. When a person is

transported he or she may not notice someone walking up next to him or her. The person may even become distant from the assumptions or rules of the actual world. This is to say the person puts their “knowledge” on hold to not interrupt the connection to the story. The feelings and involvement induce a connection between reader and characters start to form.

The key components of transportation are narrative text, artistic craftsmanship, and inaccessibility of the actual world (Brock & Green 2005). The text must be narrative (i.e. tell a story) for transportation to occur. Artistic craftsmanship of the narrative will have a direct effect on the extent to which the reader is transported. High quality narratives encourage transportation more than poor quality narratives. High quality narratives can be defined as exuding believability, vividness, and correct grammar. Finally the narrative must draw in the reader so that he or she loses consciousness of their physical and psychological being.

The defining component of transportation theory is that a narrative is used as the mode of information processing. A narrative is a story with characters, and a plot. Also, in order to be considered a narrative the story must have a beginning, middle and end. Green and Brock (2000) investigated the basic differences between high and low transported individual and how consistent the reader’s beliefs are with the story.

Transportation is a continuum; individuals can range from high or low transportation. Individuals that have lower sensations of transportation are “removed” from the narrative. These individuals have a consciousness of the world around them. High transportation individuals report a high feeling of being immersed in the narrative. These individuals lose awareness of the world that surrounds their physical being and

their thoughts. The narrative becomes the world in which they exist. In this place simple rules can be different from that of the physical world and attitudes along with their rational can be different. These different attitudes can be adapted by the reader because taking the time to analyze them would take away from the feeling of transportation. Low transportation individuals may not feel as involved in the narrative. The degree of conscious awareness may be higher. That is the surrounding and held beliefs of the reader are still present.

Green and Brock (2004) divulge that most research on transportation focuses on the change in attitude. Transported readers show more story-consistent beliefs and opinions than their less transported counterparts. This study will focus on the attitude of the destination held by the individual and how consistent it is with the narrative or non-narrative. Existing studies on transportation as persuasion must be examined.

Brock and Green (2000) published their transportation scale which includes eleven general items. The scale has been used to study to participants attitude change toward events that occurred in the narrative. The use of two different narratives, one with high transportation effects and one with low transportations effects, is how transportations is manipulated. In most studies highly transported individuals reported more consistent views with the given narrative than those who were only minimally or not transported (Green, 2004).

Green's (2004) study examines the role of previous knowledge on transportation and perceptions of realism. Perceived realism is not real world truths rather more the plausibility the reader believes the story to have. The results indicated that prior knowledge of the subject matter increased transportation supporting the hypothesis. The

results for the perceived realism manipulation did not support the hypothesis and had no effect on attitude change or the amount of transportation experienced.

Marsh, Meade, and Roediger (2003) conducted a study that looked at the extent to which facts from fiction (narratives) are integrated or compartmentalized in the mind of the reader. It aimed to see if people would use facts from the fiction they read to answer questions about the real world and if they people knew if they were using the facts from fiction. In order to control for prior knowledge questions were asked that tested the existing knowledge the individual had. The results suggested that story reliance stayed consistent whether or not misinformation was used. They conclude that people will use the narrative as a source of factual information.

### *Transportation and Tourism*

Tourism in and of its self is a story. Many tourist brochures, literature, tours and self-reports are told to some degree in story form. It was found that transportation can be experienced through tourist literature (Gress, Skalski & Perloff, 2008). Gress, et. al. used a published text with short stories about a travelers experiences in Ireland to study participants congruent attitudes. The results found that participants that reported higher levels of transportation also reported more story congruent attitudes.

H2: Individuals who report higher feelings of transportation will have more tour congruent attitudes than individuals who report lower feelings of transportation.



## *Satisfaction*

Satisfaction has been used frequently to measure feelings that relate to an event, job, life, or leisure time experience. Here it will be used exclusively for the purpose of measuring feelings toward leisure time activities. Satisfaction is “a relative index commonly defined as the discrepancy between expectations and the actual situation” (Francken & Raaij, 1980, p.338). When expectations are not met in the actual situation dissatisfaction occurs, conversely expectations that are met lead to satisfaction. Expectations are used as a base of comparison for the individual’s satisfaction rate. Ölander as cited in (Francken & Raaij, 1980, p. 338) describes four possible combinations (see Figure 1). These possibilities are creative dissatisfaction, true dissatisfaction, true satisfaction, and resignation. Creative dissatisfaction occurs when the individual has high expectations or that the optimal experience will occur but the satisfaction rating is low. True dissatisfaction is the combination of low expectations and low satisfaction. True satisfaction is the opposite. The individual has high expectations and the experience meets those expectations causing the individual to be highly satisfied. Resignation is when an individual has the expectation that reaching the optimal experience is not likely to occur but has a moderately high satisfaction rate. These four components make up the dimensions that people experience when assessing expectations and satisfaction. This study will focus on satisfaction specifically with leisure time activities.

Figure 1.

Ölander's Classification of Types of  
Satisfaction/Dissatisfaction  
(Francken & Raaij, 1980)

		Expectation	
		Optimistic	Pessimistic
Satisfaction	Low	Creative Dissatisfaction	True Dissatisfaction
	High	True Satisfaction	Resignation

*Leisure Satisfaction*

After identifying the multiple possibilities of satisfactions it is important to discuss what leisure satisfaction is in more depth. There are other areas of satisfaction specifically:

“Leisure satisfaction is defined as the positive perceptions or feelings which an individual forms, elicits, or gains as a result of engaging in leisure activities and choices. It is the degree to which one is presently content or pleased with his/her general leisure experiences and situations” (Beard & Ragheb, 1981, p. 22).

Beard and Ragheb (1981) go on to clarify that satisfaction can be the positive feelings elicited by the meeting of either felt or unfelt needs. Meaning that the individual does not need to be conscious of the needs he or she wishes to fill.

Six components make up the dimensions of leisure satisfaction. They are psychological, educational, social, relaxational, physiological, and aesthetic (Beard & Ragheb, 1981). These components combined make the Leisure Satisfaction Scale (LSS) which will be implemented for the present study. Psychological refers to the psychological benefits felt from leisure time such as involvement and sense of freedom (Beard & Ragheb, 1981). The educational component is the “intellectual stimulation and

helps them to learn about themselves and their surroundings” (Beard & Ragheb, 1981). The social aspect addresses the fruitful relationship with others that can be a part of the leisure time experience. Relaxation refers to the reprieve from the stresses of life (Beard & Ragheb, 1981). The physiological component is the promotion of physical well being (Beard & Ragheb, 1981). Aesthetic for leisure time refers to the beauty, intrigue, and design of the space in which the leisure time is occurring.

The current study aims to uncover what factors of a tour create a satisfying experience. Integrating the research on sensory and the research on leisure satisfaction to explain an optimal self guided tour is both practical and fascinating.

RQ1: Will self-guided tour be a satisfying leisure time experience?

H3a: Individuals who experience both audio and visual will report higher feelings of leisure satisfaction than individuals who experience audio only.

H3b: Individuals who experience audio commentary will report higher feelings of leisure satisfaction than individuals whose experience is with a map.

### *Tourism and the tourist experience*

It is imperative to set up a framework in which the terms tourism and tourist can be explicated. Urry (2002) provides the foundations for analyzing tourism in an empirical sense. For this study the Urry’s (2002) working definition of tourism and the tourist will be used. Urry (2002) points out nine aspects or criteria, that will be explain subsequently, that make the tourist experience different than that of the everyday. These nine aspects are a guide to what tourism is and how it can be conceptualized and not a strict theory of

tourism. However, Urry's nine aspects are the most commonly accepted and used defining components of tourism in research (Turner, Turner & Carroll, 2003). Only seven will be discussed the other two aspects deal with the employment opportunities that are created by tourism and there for do not relate to this study. Self-guided tours do not employ humans to physically take tourist through the tour, there for employment in the sense that Urry is interpreting it as is not applicable. The aspects to be discussed here relate directly to the present study, not all aspects of Urry's tourism and tourist definitions apply due to the unique nature of this project. The first requires tourism to be a leisure activity. This is easily explained by Urry (2002) as presupposing the opposite, being that tourism is not regulated to organized work. It is a social practice in 'modern' societies, completely separate from paid work. The second component of identifying a tourist or tourism is that there is a need for the person to travel some distance moving through space and stay for periods in a new place or places (Urry, 2002). Next, a clear distinction that makes an individual or group, tourists is their intention to return 'home'. This means that the stay in a place outside of the normal residence and work is reasonably short in time and once the journey is over the tourist come back to their place of everyday existence (Urry, 2002). Urry also specifies that the places that are visited or 'gazed upon' are not linked to paid work. These places offer some type of distinctly different experience from work (Urry, 2002). As the fifth aspect Urry (2002) states that, "A substantial proportion of the population of modern societies engages in such tourist practice; new socialised forms of provision are developed in order to cope with the mass character of the gaze of tourists" (p. 183). New technologies are created to aid in positive perceptions of the destination from the tourist's point of view. It is common place in

modern societies for many people to engage in tourism and because of that high demand for resources at the destination technologies are created to reduce the chaos that is a result of masses gathering. For example, the Baseball Hall of Fame in Cooperstown New York implemented a system which allows visitors to walk themselves through the displays without risking missing something interesting that could have been overlooked if no guidance was offered. The benefit of having a charismatic tour guide is accounted for by the careful planning of the script for the tour. Technologies provided by the Hall of Fame give the tourists the opportunity to experience all that it has to offer without the inconvenience of waiting. Also, a requirement is that the tourist chooses the places to be ‘gazed’ upon because there is anticipation (Urry, 2002). The tourist wants to see what the place is like and experience it firsthand. Finally, the places experienced are features of the area that remove the tourist from the everyday experience (Urry, 2002). Such features can be physical land features, buildings, or social differences.

Urry examines tourism from a sociological perspective. His emphasis lays in the construction of an industry (i.e. creating jobs) and the experience that the tourists have. Some differences in emphasis to relate it to the field of communication and this study are the focus will be on the tourists experience and how the technology can elicit the ‘tourist gaze’ and create a positive experience. The use of telepresence in combination with the ‘tourist gaze’ has never before been looked at. The hope is to bridge the two concepts in order to better understand the tourist experience when using mediated technology.

### *Self-guided tours*

Tourism can occur in many forms such as bus tours, curator guided tours, self-guided tours, and even not taking a tour. The present study will focus on one type of self-

guided tour. The self-guided tour can be in many forms. It can be as simple as picking up a map and walking around an area to as complex as tour guided by a holographic gnome. In the current study the focus will be specifically on MP3self-guided tours. Readily advancing technology is looking for new places to expand or an area ripe for creation. The ever growing (both financially and other wise) tourism industry makes it a draw for new technology applications.

The term self-guided does not mean that the individual is completely alone in deciding what to experience or in experiencing something. Instead, it means that no human is in the immediate spatial area guiding the individual through the tour. The tour can be guided by a technology. The self-guided tours range from implementing technologically that is simplistic to complex. An example of the simplest is an individual walking around a city with nothing but a map in hand to guide them. On the other end of the spectrum individuals can experience tours without ever leaving their homes. Virtual replica environments allow individuals to virtually tour a created space that is close to the actual. Also, tourists can take a tour, while at the physical destination, that is guided by a virtual tour guide. Mobile devices and holographic images are used to create a, go at your own pace, tour of a destination. Specific examples of two different self-guided tours are IPcity and Cityprowl.

#### *IPcity and Cityprowl*

##### *IPCity*

The IPcity project is one example of the possibilities for tours. This project takes urban environments and implements virtual technologies to supplement the tour (IPcity, April 2008). The ‘guide’ of the tour is a holographic image of a gnome. As the tour takes

place the gnome provides the information about each location and directions to the next location. The only technology that is required for the tourist to have is a hand held mobile device and glasses that make seeing the image possible. Both can be rented from the city center. The glasses allow the tourist to see the gnome in the physical surroundings. Also IPcity has created holographic images of the existing building that replicate the way they would have looked years ago. This image can be displayed over the building or not at all, allowing the tourist to 'go back in time' and experience how the building would have looked. This mixed-reality (meaning that the experience is in the physical world with elements of the virtual world) tour is moving forward the concept of the self-guided tour. This tour allows the individual to adjust the tour as he or she experiences it. If something is not of interest, it may be skipped. Also, the control of the order in which the tour is experienced is controlled by the tourist.

#### *Cityprowl*

Cityprowl is a Cleveland based non-profit company that produces and distributes self-guided MP3 tours. Cityprowl offers five half-mile tours in downtown Cleveland and a large number of many other tours in surrounding areas. The tours highlight contemporary and historical features of the area. The aim is to get people to understand the city that they are in as well as be able to enjoy some of the hidden secrets of the area. This will be the type of tour examined in the present study.

#### *Summary*

For self-guided tours telepresence may be experienced by the individual through the individual losing awareness of the technology and focusing only on the tour. While a vast range of technology can be used for self-guided tours the concept remains the same.

The tour may describe and show an area as it was in the past and the individual could feel as if they are there in that place at that time described and shown when in fact they are not.

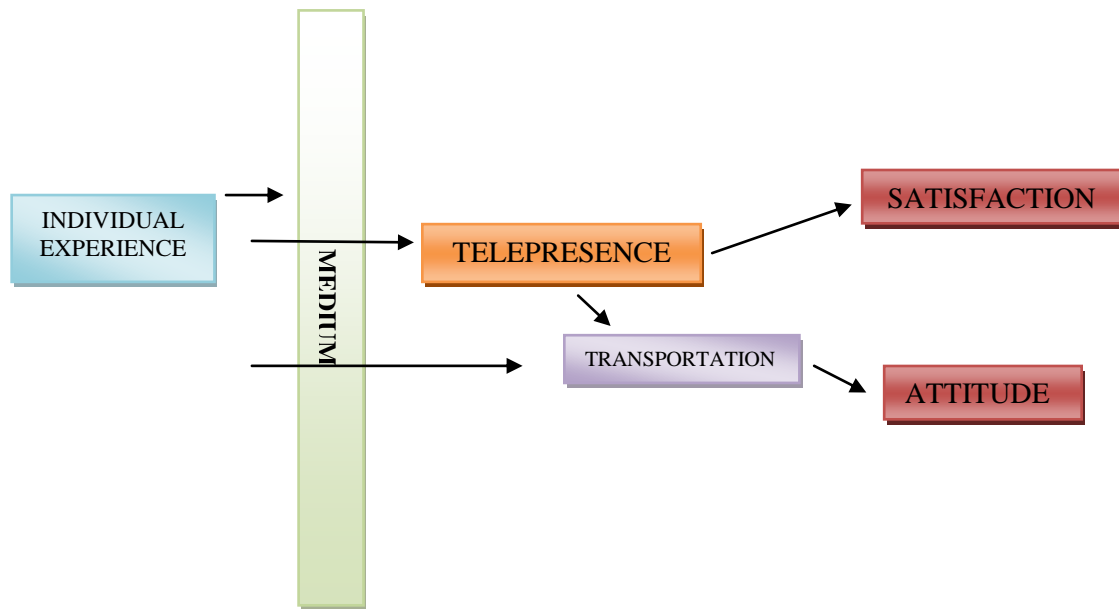
Telepresence and transportation can help to explain and uncover what factors contribute to the satisfaction of self-guided tours. Also, the theories will be able to provide a guide for the improvement or configuration of self-guided tours so that individuals can have the most pleasant and informative experience. The technology of the self-guided tour is rapidly becoming more sophisticated; telepresence will help to explain the experience of the tourist. The experience is important because in order to market and produce effective and pleasant tours it needs to be fully understood from the vantage point of the individual. Self-guided tours can tell a story of the place of the tour. This narrative of the location can be examined using transportation to determine if it is an effective means of attitude change and knowledge gain.

Below is a conceptual model (See Figure 2) of the relationships of the concepts presented in this study. First the individual brings to the situation their own experience which affects the following outputs. If the experience is a novelty it would be perceived differently than if the individual is accustomed to it. The individual then experiences the medium and can be caught up in the medium itself or can further the experience. The individual, if they can get past the medium can experience telepresence and/or transportation. Not everyone will experience the same amount of telepresence or transportation and it is possible to experience only one or the other. From there depending if telepresence and/or transportation occurs the satisfaction from the



experience will be impacted as well as the individuals attitude. Telepresence is tied to satisfaction and transportation is linked to attitude both are exclusive outcomes.

Figure 2. Conceptual Model



## CHAPTER II

### PROCEDURES AND METHODOLOGY

#### *Overview*

This study examines the experience that individuals have when taking a self guided tour. It aimed to begin to uncover the interaction of telepresence and the tourist experience. The study used the of the sense of immersion and the loss of awareness of mediation as the starting point for understanding what factors create an experience that is both pleasurable and enlightening for the tourist. Also, satisfaction of the experience is examined. This section will cover in detail what procedures and methods were enlisted to create the experimental design.

#### *Focus Group*

Focus groups were executed to gain information about the familiarity of mediated tours. Three separate groups were run, each consisting of approximately seven Cleveland State University communication students. One standard set of guidelines and questions (Appendix B) to guide and start discussions were given to each conductor. Each focus group was recorded, two with video and audio and one with audio only. Each group had a note taker also in the room to serve as a backup to the recorders. Each focus group discussion lasted no less than one hour and no more than two hours.

### *Experimental design*

The purpose of this study was to begin to understand and explore the impact that sensory engagement has on the tourist experience. In order to test the hypotheses posed in the previous section a single factor experience with three levels of the independent variable was used. This design measures the attitudes, sense of immersion, expectation and satisfaction of the participants. Twenty-eight participants were in each condition this yielded enough data to draw conclusions.

Figure 3. Experimental Set-up

Euclid Tour	
Map	28 subjects
Audio	28 subjects
Audio & Visual	28 subjects

### *IRB Approval*

IRB Approval was sought, after the acceptance of the proposed study by the thesis committee, and obtained (Appendix A). The appropriate paper work was submitted for review by the board and at that time approved for both the focus group and the experiment.

### *Subjects*

Participants in this study were Cleveland State University students. The majority of the college age demographic has grown up with technology and most are comfortable with it. Seventy-three percent of participants owned an MP3 player. Users of mediated self guided tours are likely to be college age because of the comfort they possess with

technology. Forty-eight females and thirty-six males participated in the study. The age ranged from 19-57 with an average age of 26. Four percent of the total participants were Asian, 21% African American, 4% Hispanic, 64% Caucasian, and 7% indicated 'other' as their race and/or ethnicity.

### *Stimulus*

A map of Euclid Avenue in the vicinity of Cleveland State University was utilized as the basis for the creation of the stimuli for this study. The map stimulus condition included a written version of the audio that was used for the other two conditions in order to keep consistent the information that was being provided.

An audio tour of the area was created for the second condition. The tour is approximately 15 minutes long. The tour provided the history and interesting facts about the area. The nature of this tour was to give the story of Euclid Avenue's beginnings and a history of some of the buildings. False statements have been added in order to test congruent attitudes (See Appendix C for complete script).

An alternative tour was made to supplement the audio and provided another condition in which more senses were being engaged. It included pictures of the places covered in the audio tour. The length of both the audio tour and audio visual tour components are the same. Presumably the map tour would take the same length because the text was the same as the audio used in the other two conditions. The tour took an average of 12 minutes for participants to complete.

The walking tour that was used for this study was portrayed in a story form being told by a narrator about Euclid Avenue in Cleveland Ohio. The very nature of tours themselves are stories. For any tour the story will vary from place to place but, the basic

beginning, middle and end, that are the necessary components of a story, are always a part of it.

The information gathered for the tour was collected from the Euclid Corridor Project (<http://www.riderta.com/kiosk/content/csu/>) being run by Cleveland State University and well as from Cityprowl (<http://www.cityprowl.com/>). Cityprowl is a non-profit organization that began as a project to help revamp the Cleveland city image and to share the history of the city with not only its visitors but its residents. Cityprowl has agreed to allow the usage of all content for this study. Euclid Corridor Project is a compilation of interviews and historical accounts of the area on Euclid Avenue in Cleveland, Ohio. Both Cityprowl and Euclid Corridor Project are public works projects and the information is available to anyone.

#### *Location*

The tour of Cleveland that was used took tourists around Euclid Avenue and told the history of the area and explained important landmarks. Only a portion of Euclid Avenue was used due to time constraints, liability and participant fatigue. This was used to compare whether audio mediated, audio and visual mediated or map guided tours play a role in satisfaction.

#### *Independent Variables*

##### *Form*

In the study (map versus audio only versus audio and visual) the manipulation of the audio and visual elements was be used. In the map only condition subjects were only given a map of the area that noted the same areas of interest as in the audio and audio and visual conditions. In the audio only condition subjects heard only the audio of the tour.

Subjects that were in the audio and visual group experienced not only the audio but also had visuals on the iPod while taking the tour.

#### *Audio Only*

The format of the tour was also manipulated. The first tour of Euclid Avenue was audio only. The audio was loaded on an iPod. This will be used for one condition of the study.

#### *Audio and Visual*

The second condition or tour of Euclid Avenue was audio and visual. Pictures of the points of interest discussed in the tour of Euclid Avenue were added to the audio only tour. The audio and visual tour was loaded on an iPod.

#### *Map*

The third condition was visual tour. A map of Euclid Avenue noted the places that were discussed in the iPod mediated tours. The script from the audio only tour was transcribed to text form and placed below the map. The map was adapted from Cleveland State University's campus map to ensure the accuracy of the highlighted locations.

#### *Dependent Variables*

The variables that were measured were telepresence (mental immersion), transportation, attitude and satisfaction.

#### *Telepresence*

Telepresence was measured using a compilation of telepresence items that aim to measure the feeling of non-mediation and more specifically immersion as it relates to

mental immersion. The items were taken from a comprehensive list created by Matthew Lombard and Theresa Ditton (2007), which offers a source for telepresence measures.

### *Spatial presence*

Items for telepresence aimed to get at spatial presence and mental immersion. Items used to measure spatial presence are ‘How much did you experience a sense of being there?’, ‘How much did you feel as if you were inside the environment observing the events?’, ‘How much did the experience seem to transport you into the environment?’ and ‘How much did it feel as if you visited another place from where you were?’. The Chronbach’s Alpha for these items is .91.

### *Immersion*

Immersion was measured with a summative scale. Possible items used to create the scale included: ‘How aware were you of events occurring in the real world around you?’ ‘How much did the visual aspects of the environment involve you?’, ‘To what extent did you feel like you were inside the environment?’, ‘To what extent did you feel immersed in the environment?’, ‘To what extent did you feel surrounded by the environment?’ ‘To what extent did you feel immersed in the environment?’, ‘I got really involved in the tour.’, and ‘I really thought about the tour while I was on it.’ Three items made up the final scale. The items were ‘To what extent did you feel immersed in the environment?’, ‘I got really involved in the tour.’, and ‘I really thought about the tour while I was on it.’ The Chronbach’s Alpha for these items is .90.

### *Transportation*

Transportation was measured using the transportation scale created by Green and Brock (2000). Some items will be changed to fit the context of this study. Some of the

items are ‘While I was listening to the narrative, I could easily picture the events in it taking place.’, ‘While I was listening to the narrative, activity going on in the room around me was on my mind.’, ‘I could picture myself in the scene of the events described in the narrative.’ and ‘I was mentally involved in the narrative while listening to it.’ The Cronbach’s alpha for the transportation scale is .76.

A summative scale was created by computing the mean of the sum of scores for selected items. Once a scale was built frequencies were run to determine a cut point to recode the values into high (1) and low (0). A cut point of 4.33 was used resulting in 39 low values and 45 high values to use for further analysis. This means that when the respondent’s scores for the transportation items were summated the ‘midpoint’ of all respondents’ scores occurred at the score of 4.33. Therefore, using this score as a cut point would allow for the most even distribution of high and low values for further analysis.

### *Attitudes*

Attitudes were measured using some of the transportation items created by Green and Brock (2000) as well as some items from Gress, Skalski and Perloff (2008) that fit the content of the tour used in this study. These items include ‘I would recommend going to Euclid Ave. to anyone who was interested in taking a vacation.’ and ‘I would consider going to Euclid Ave. sometime.’ A scale was created to measure congruent attitudes.

### *Satisfaction*

Satisfaction was measured using items that make up the LSS which are the six components of satisfaction as discussed by Beard and Ragheb. These components are psychological, educational, social, relaxation, physiological, and aesthetic as discussed



before. The alpha reliability coefficient for all of the LSS was .96. For a breakdown of items included in each component or subscale as well as the reliability coefficient for each see Figure 3.

#### *Psychological*

Items like ‘I freely chose the activities I do in my leisure time.’, ‘I consider the leisure time activity to be a waste of time.’ and ‘The leisure time activity was intellectually challenging.’ were be used to measure the psychological component. This subscale has a correlation of .86.

#### *Educational*

Items such as ‘The leisure time activity gave me a broader experience.’, ‘The leisure activity increased my knowledge about the things around me.’ and ‘The leisure activity helped to satisfy my curiosity.’ measure educational satisfaction. Educational subscale has a correlation of .90.

#### *Social*

Social satisfaction was measured by items like ‘I associate with people who enjoy doing similar leisure activities.’ The correlation of the social satisfaction subscale is .88.

#### *Relaxational*

Relaxational satisfaction will be measured by items such as ‘The leisure activity helped me to relax.’, ‘The leisure activity helped me to relieve stress.’, ‘The leisure activity contributed to my emotional well being.’ The relaxational satisfaction subscale has a correlation of .85.

### *Physiological*

Physiological satisfaction subscale consists of items like ‘The leisure activity contributed to my emotional well being.’ The correlation for this subscale is .92.

### *Aesthetic*

The subscale of aesthetic includes items like ‘The area or place where the leisure activity took place was clean and fresh.’, ‘The area or place where the leisure activity went was interesting.’ and ‘The area or place of the leisure activity was were well designed.’ The correlation of this subscale was .86.

Figure 4. LSS Alpha Reliability Coefficient  
Beard and Ragheb

Subscale	Items Included	Alpha Reliability Coefficient
Psychological	I freely chose the activities I do in my leisure time	0.86
	The leisure time activity was very interesting to me	
	I consider the leisure time activity to be a waste of time	
	The leisure time activity was intellectually challenging	
Educational	The leisure time activity gave me a broader experience	0.90
	I learned things in my leisure time activity simply because I like learning them	
	The leisure activity increased my knowledge about the things around me	
	The leisure activity helped to satisfy my curiosity	
Social Satisfaction	The people I met in the leisure time were friendly	0.88
	I associate with people who enjoy doing similar leisure activities	
Relaxational	The leisure activity helped me to relax	0.85
	The leisure activity helped me to relieve stress	
	The leisure activity contributed to my emotional well being	
Physiological	The leisure activity helped me to relax	0.92
	The leisure activity helped me to relieve stress	
	The leisure activity contributed to my emotional well being	
Aesthetic	The area or place where the leisure activity took place was clean and fresh	0.86
	The area or place where the leisure activity went was interesting	
	The area or place of the leisure activity was were well designed	
All LSS Items		0.96

To measure whether or not the expectations were met and satisfied an open ended question was asked before the tour was taken. This question was ‘What do you expect the tour to be like?’ Following the tour the first question that was asked was regarding ‘if the tour exceeded, met or was below expectations.’

For this research Satisfaction was measured using items adapted from the LSS. Reliability Analysis was performed to check the plausibility of the items’ relationships in this project. An alpha coefficient of .89 was found for all of the items. Next, a Confirmatory Factor Analysis was run to determine what items relate. Five loadings were found, only one was used for the purpose of this analysis. The loading included ‘The tour was very interesting to me’, ‘I consider the tour to be a waste of time’ (recoded), ‘The tour gave me a broader experience’, ‘I learned things in my tour simply because I like learning them’, ‘The tour helped to satisfy my curiosity’, ‘The tour helped me to relax’, ‘The tour helped me to relieve stress’, ‘The tour contributed to my emotional wellbeing’, ‘The area or place where the tour went was interesting’, and ‘I enjoyed the tour of Euclid Ave.’ (See Table 1.). This loading was named Worthwhile due to the common nature of the items targeting the meaningfulness of the tour. The other three loadings that were not used contained very few items and were not the best fit for this study. The remaining three loadings combined only accounted for 22.31% of the total variance.

### *Procedure*

Participants were randomly assigned a group using numbers 1 through 3 in rotation to signify the group they would be in. The students were given a packet that contains both the informed consent form and the questionnaire. Students were be asked to read the informed consent form (Appendix D) and then told that the study will require

Table 1.

## Confirmatory Factor Analysis loading for the Worthwhile Scale

	Factor 1: Worthwhile	Factor 2: Control	Factor 3: Go	Factor 4: Similar
I would consider going to Euclid Ave. sometime			-.64	
I would never go to Euclid Ave.			.57	
I freely chose the activities I do in my leisure time		.57		
The tour was very interesting to me	.80			
I consider the tour to be a waste of time (recoded)	.60			
The tour gave me a broader experience	.74			
I learned things in my tour simply because I like learning them	.66			
The tour increase my knowledge about the things around me		.58		
The tour helped to satisfy my curiosity	.74			
I associate with people who enjoy doing similar leisure activities				.61
The tour helped me to relax	.84			
The tour helped me to relieve stress	.85			
The tour contributed to my emotional wellbeing	.82			
The area or place where the tour went was interesting	.73			
I enjoyed the tour of Euclid Ave.	.90			
Eigenvalue	9.43	2.08	1.52	1.09
<b>% of Total Variance</b>	<b>44.92</b>	<b>9.90</b>	<b>7.23</b>	<b>5.18</b>

them to walk outside for approximately 15 minutes, before continuing on with the study.

Next, the subjects complete their tour. The average time the tour took to complete was 12 minutes. After completing the tour the students were asked to complete the questionnaire

completely and as accurately as possible. The questionnaire (Appendix E) took participants an average of 15 minutes to complete. To complete both the tour and the questionnaire the average participant spent 27 minutes.

After completing the questionnaire the participants were instructed to hand in their completed questionnaire and were debriefed about the study. During the debriefing participants were asked not to share any information about the study while it was being conducted and were informed of the false information in the tour.

## CHAPTER III

### RESULTS

In order to gain an understanding of language used, feelings and preconceived notions of tours focus groups were conducted and the results analyzed before the creation of the experimental materials. After the conclusion of the experiment multiple analyses were preformed to evaluate the outcomes of the study. Scales were built and tested for reliability. ANOVAs were used to explore the differences between experimental groups. Taken as a whole, this study resulted in a platform for further in depth research to be preformed.

#### *Focus Group*

Overall conclusions that can be drawn from the data collected include that student's motivations for taking tours include not being familiar with the area, interest in area or topic covered in tour, and size of group traveling. Participants attributed size of group (i.e. large family, bunch of friends, alone) a factor in deciding to partake in a tour. The larger the group the more beneficial a guided tour would be, citing reasons of the nature of a tour to be structured. Small groups or situations of being alone lend themselves better to taking self- guided tours or no tour at all, because the mobility of the group or self is not a limited.

In regards to the question what is gained from a tour, participants expressed they learned information that would not otherwise be available. Participants also added that a tour is a form of entertainment. The more entertaining the presentation of information and the type of information given, adds to the enjoyment and satisfaction with the tour. One participant also stated that interaction or an interactive component to the tour makes for a better experience, the rest agreed.

Overall, the knowledge of mediated tours was either nonexistent or very limited. The majority of participants had no idea mediated tours were offered anywhere. Ones with little knowledge in some cases were unfamiliar with the name of that type of tour but knew some what about the form itself.

Conclusions that were drawn and taken into consideration for this experiment, was the importance of the entertainment value of the tour. Many participants explained that the size of the group contributed to the likelihood of partaking in a particular tour. The larger the group the higher the likelihood that a guided tour would be chosen whereas, individuals or small groups would be more likely to utilize a self-guided tour. Also, the limited knowledge of mediated tours encourages the exploration of the topic in this study. Motivations held no real weight in this study however the information is useful in terms of real world applications.

### *Experiment*

#### *MANOVA*

An overall test was conducted to test the difference between multiple dependent variables at once. The dependent variables used in the MANOVA were immersion, transportation and worthwhile scales. By measuring all of the dependent and independent

variables at once allowed for the exposure of any main or interactional effects that may have existed in data. In the present study the MANOVA is the primary analysis used to access the differences between immersion, transportation and worthwhile scales (See Table 2 for results of MANOVA for condition on immersion, transportation and worthwhile scales. Also, see Appendix G for MANOVA descriptive statistics). Once the MANOVA is run further analysis is needed to identify the factors that affect the results. The rest of the chapter uses ANOVAs to pinpoint and further explain the results of each individual hypothesis.

Table 2.

*Table of MANOVA results for Condition on Transportation, Worthwhile and Immersion Scales.*

Effect	Post Hoc Tests	Values	Sig.	Partial Eta Squared	Observed Power
Intercept	Pillai's Trace	.975	.000	.975	1.00
	Wilks' Lambda	.025	.000	.975	1.00
	Hotelling's Trace	38.60	.000	.975	1.00
	Roy's Largest Root	38.60	.000	.975	1.00
Condition	Pillai's Trace	.160	.098	.080	.731
	Wilks' Lambda	.842	.092	.082	.739
	Hotelling's Trace	.184	.086	.084	.747
	Roy's Largest Root	.167	<b>.015</b>	.143	.817

*Hypothesis 1a & 1b.* Hypothesis 1a predicted that individuals who hear and see visuals during a tour will report higher rates of immersion than individuals who hear only audio commentary during a tour. An ANOVA was analyzed to see if any significant differences appeared between recipients of audio and visuals and recipients exclusively of audio. No difference between recipients of audio and visual ( $M=.393$ ) and recipients



of audio ( $M=.643$ ) was found on the Mental Immersion scale  $F=1.774$ ,  $p=.176$ . (See table 3 for the ANOVA results for Mental Immersion and Audio and Audio and Visual). This means that recipients of audio did not report significant differences in their rate of Mental Immersion than audio and visual recipients did.

Hypothesis 1b stated that individuals who hear visuals during a tour will report higher rates of immersion than individuals who read a map during a tour. An ANOVA was performed to see if any significant differences appeared between recipients of audio and recipients of the map condition. The difference between recipients of audio ( $M=.643$ ) and recipients of the map ( $M=.500$ ) condition was not significant on the Mental Immersion scale  $F=1.774$ ,  $p=.176$ . (See Table 3 for the ANOVA results for Mental Immersion and Audio and Map). There were no significant findings between Mental Immersion for individuals in the Audio or Map conditions.

Table 3.

*Table of ANOVA for level of Mediation used in Self-guided tour*

Variable	Type III Sum of Square	df	Mean Squares	F	Sig.	Power
Mental Immersion	.881	2	.440	1.774	.176	.042

*Hypothesis 2:* Hypothesis 2 stated that individuals that report a high level of Transportation will have more story congruent attitudes. An ANOVA was performed to see if any significant differences appeared between individuals who reported high or low rate transportation. The mean ( $M$ ) score for the audio condition was .714, the audio and visual condition was .500, and the map condition was .464. Participants in the audio condition reported higher transportation than the audio and visual, and map conditions

however once tested the difference between individuals who reported high transportation and individuals who reported low transportation was found to be non-significant on the Transportation scale  $F=2.107$ ,  $p=.128$ . (See table 4 for the ANOVA results for Transportation and Congruent Attitudes) An ANOVA was run to test the difference between participants that reported high or low on the Transportation scale on the Congruent Attitudes scale. Participants reported lower congruent attitudes ( $M=16.08$ ) when they reported lower feelings of Transportation and slightly higher congruent attitudes ( $M=17.34$ ) if they reported higher feelings of Transportation. The difference was found non-significant on the Congruent Attitudes scale  $F=3.30$ ,  $p=.073$ . (See Table 4 for the ANOVA results for Transportation and Congruent Attitudes). Therefore, participants that reported higher rates of transportation were not less likely to have tour congruent attitudes than participants that reported lower rates of transportation.

Table 4.

*Table of ANOVA for level of Transportation and Congruent Attitudes*

Variable	Type III Sum of Square	df	Mean Squares	F	Sig.	Power
Transportation	1.024	2	.512	2.107	.128	.049
Congruent Attitudes	32.833	1	32.833	3.302	.073	.039

*Research Question 1:* Research question 1 posed the question, ‘Will self-guided tour be a satisfying experience?’. An ANOVA was used to determine if participants reported higher satisfaction with self-guided tours. The means ( $M$ ) for the three conditions on satisfaction were; audio 24.75, audio and visual 22.39, and map 21.00. While participants in the audio condition reported the highest amount of satisfaction, no

significant findings resulted from the test (See Table 5 for results of ANOVA for level of satisfaction from self-guided tours).

Table 5.

*Table of ANOVA for level of Satisfaction from Self-guided tours*

Variable	Type III Sum of Square	df	Mean Squares	F	Sig.	Power
Satisfaction	201.214	2	100.607	1.770	.177	.042

*Hypothesis 3a & 3b:* Hypothesis 3a proposed that individuals who experience both audio and visual will report higher feelings of satisfaction than individuals who experience only audio. To determine if a significant difference existed between the two groups an ANOVA was implemented. The difference between individuals who experienced both audio and visual and individuals who experienced auditory commentary was significant on the Worthwhile scale  $F=3.549, p=.033$ . (See table 6 for the ANOVA results for level of Mediation and Worthwhile). Individuals in the audio condition reported higher levels of worthwhile with a mean of 5.04 than individuals in the audio and visual condition with a reported mean of 4.52.

Hypothesis 3b predicted that individuals who experience exclusively audio will report higher feelings of satisfaction than individuals who experience the map condition. An ANOVA was used to analyze if a significant difference existed between individuals in the auditory condition ( $M=5.03$ ) and the map ( $M=4.21$ ) condition. The difference between individuals who experienced audio and individuals who experienced the map condition was significant on the Worthwhile scale  $F= 3.549, p=.033$ . (See Table 6 for the ANOVA results for level of Mediation and Worthwhile).

The reported mean (5.03) of Worthwhile was higher for individuals in the audio condition. Therefore, individuals that experienced the tour commentary through audio only were more likely to report a higher feeling of the tour being worthwhile.

Table 6.

*Table of ANOVA for level of Worthwhile*

Variable	Type III Sum of Square	df	Mean Squares	F	Sig.	Power
Worthwhile	9.826	2	4.913	3.549	.033	.081

#### *Additional Analyses*

*Expectation:* An ANOVA was run to analyze the impact of the condition on the meeting, exceeding or the experience being below the expectations. It was shown that the audio condition was the condition that was most likely to exceed participants' expectations ( $M= 5.29$ ). The audio and visual condition was the next most likely to exceed participants' expectations with a mean score of 4.75. The map condition was the least likely to elicit the feeling of the tour exceeding expectations ( $M= 4.29$ ). The difference between the conditions was found significant (see Table 7 for results of the ANOVA for condition on Expectation).

Table 7.

*Table of ANOVA for Expectation*

Variable	Sum of Squares	df	Mean Squares	F	Sig.
Expectation	14.02	2	7.01	3.14	<b>.048</b>

*Perception of Narrator:* An ANOVA was used to analyze the impact of the medium on the perception of the narrator. It was found that the medium significantly impacted all items related to the perception of the narrator. The participants in the audio condition reported the highest mean scores for the narrator (Narrator like a friend you see everyday  $M= 4.393$ ; Narrator made me feel comfortable, as if with a friend  $M= 5.107$ ; and Narrator was pleasant to listen to  $M= 5.892$ ). Participants in the map condition were reported the lowest mean scores on items regarding the narrator (Narrator like a friend you see everyday  $M= 2.852$ ; Narrator made me feel comfortable, as if with a friend  $M= 3.259$ ; Narrator was pleasant to listen to  $M= 3.519$ ). (See Table 8 for the ANOVA results for Condition on perception of narrator).

Table 8.

*Table of ANOVA for Perception of Narrator*

Variable	Sum of Squares	df	Mean Squares	F	Sig.
Narrator like a friend you see everyday	33.55	2	16.77	7.156	<b>.001</b>
Narrator made me feel comfortable, as if with a friend	51.84	2	25.92	12.09	<b>.000</b>
Narrator was pleasant to listen to	95.56	2	47.78	25.63	<b>.000</b>

*Age:* After analyzing the distribution of age over the three conditions the audio and visual condition contained the youngest participants ( $M= 24.3$ ). The map condition contained the oldest participants with a mean age of 28.3. However, an ANOVA revealed no significant difference (.139) between the groups (See Table 9 for results of the ANOVA of condition on age).

Table 9.

*Table of ANOVA for Age*

Variable	Sum of Squares	df	Mean Squares	F	Sig.
Age	226.88	2	113.44	2.02	.139

## CHAPTER IV

### DISCUSSION

The intent of this study was to examine the tourist experience through different types of mediated tours. The main focus was to observe effects varying extents of mediation would have on telepresence, transportation, and satisfaction. By collecting results from participants in three different conditions altering only in the amount of mediation received this study was able to fulfill its intent. Past research has not looked at mediated tours and its relation to mental immersion, transportation, and satisfaction. However, mental immersion, transportation and satisfaction have all been heavily researched in other technological contexts.

Hypothesis 1a and Hypothesis 1b returned no significant differences between any of the conditions on items that made up the mental immersion scale. The results show that the amount of senses engaged (audio, audio and visual, map) did not produce a difference in the amount of mental immersion felt while on the tour. One possible explanation for this result may be that a confusion of just what they were being immersed into may have existed. Some may have interpreted immersion as physical instead of mental.

Hypothesis 2 also returned no significant result. However, the result was approaching significance meaning that the difference between individuals that reported high transportation and those that reported low transportation on reporting story congruent attitudes was small. This result could be due to a small  $n$  or group of participants. Perhaps with a larger  $n$  a significant result may be found. Also, the relationship of tour and story could be weaker than anticipated. The results, though non-significant were opposite of the expected outcome. The result was going against Green and Brock's multiple studies (2004, 2000) that found that the more transported the individual reported the more likely the individual would have story congruent attitudes.

Hypothesis 3 was significant. In both comparisons (audio vs. audio visual and audio vs. map) individuals in the solely audio condition reported higher means on the worthwhile scale. While the audio condition may not present the most sensory engagement perhaps what it does engage is a more manageable amount to digest. This may be the case because the stimuli with both audio and visual commentary may have been 'too much' and the map condition may have been 'too boring'. During the focus groups comments were made like 'it is nice to have technology but sometimes it can be all that you focus on' and 'too much of a novelty can detract from the tour'. However, the results began to favor the support of the finding by Wirth et. al (2007) who found that the more senses engaged the more likely the users were to report feeling immersed.

An additional analysis of expectations provided noteworthy results. The audio condition produced significantly higher rates of participants' expectations being exceeded than the other two conditions. The participants did not have any information about the form of the tour they would be taking when writing about their expectations of the tour.



Then after they took the tour they were asked to choose if the tour was below their expectations, met their expectations or exceeded their expectations.

### *Theoretical Implications*

Telepresence, Immersion and the involvement of senses research was not supported. More research focused on the engagement of senses in an experience tied to the satisfaction and enjoyment of the tourist. In this study, participants in the audio condition consistently reported higher mean scores of telepresence and immersion. The addition of a visual dynamic caused the participants to report a lower mean score of telepresence and immersion. Prior studies of audio (Larsson, et. al. (2007); Pettey, et. al. (2009)) as well as of sensory engagement (Selverian & Hwang (2003) and Worth, et. al. (2007)) did not require the participants to be mobile as they experienced the audio and the engagement of various senses. This could be a complication to the present study. Not only were different senses engaged the participants were required to walk in a city. The city it-self may have detracted from the experience. When walking the tour area participants needed to be aware of their surroundings not only to see the buildings the tour was discussing but also to obey traffic signals. A possible explanation of the non-significant finding could be that the participants felt confounded by all of the things that required their attention. Different results may have occurred had the participants been stationary.

An area in need of further examination is Transportation. No note worthy result was yielded from this study in support or denial of Transportation. Tourism may not be a good fit for the application of Transportation. Although Gress, et. al (2009) found tourism

as a fit in the form of a published book tours themselves as a vessel for Transportation needs continued study.

### *Practical Implications*

The basis of this study was founded on practicality. The aim was to provide evidence for the creation and implementation of mediated tours to extract the best possible satisfaction outcomes a tourist could possibly experience. What would the “optimal experience” involve? The only audio condition proved to be the most worthwhile of the three experiences. It could be possible that the participants were more comfortable with auditory technology than with audio and visual combined or a map. The fanciful and idealist view of a tour may have been heightened by the audio for the individuals. Audio and visual combined as well as the map may have detracted from that vision of the perfect tour. The audio may have also complimented what the individuals commonly understood as a tour.

One practical finding that was produced from this study was the impact of the medium on the likelihood of the narrator being liked. The audio only condition had the highest mean scores for positive views of the narrator. The audio and visual condition was slightly lower. This may be a product of the combination of both audio and visual being overly stimulating. In the audio condition the participant is able to focus on the voice of the narrator without distractions. The map condition was the least likely to produce positive views of the narrator.

### *Limitations*

A possible reason for the lack of significant results that were found may be due to the fact that many of the participants were extremely familiar with the area. The

experience of the participants may have been a possible factor. Random selection did not provide any participants in the map condition to have lived in Ohio for less than 3 years.

Part of the tourist experience is to experience something new and out of the ordinary. The fact that the loadings of how long participants had lived in Ohio were uneven may have played a part in the non-significant results. Overall, the participants in the map condition have lived in Ohio longer than participants in the other conditions. The pool of participants all attended Cleveland State University, perhaps first year students and out of state students would yield different results. Also, most of the participants lived in Ohio and around Cleveland all of their lives. This may have made the information monotonous. New unfamiliar surroundings could very well result in different findings. The audio and visual condition had the lowest average age of participant while the map had the oldest. The difference in age between the groups was found not significant.

Another possible reason for the yield of only one significant result could be explained by the deficit of professional resources in the construction of the tour. Due to the budget and time constraints of this project the stimuli were adapted from existing professionally developed tours/websites (CityProwl and Euclid Corridor Project). However, the compilation used was not solely created by those entities.

A pre-test was not conducted to test the level of immersion elicited from the three different stimuli. Had a pre-test been utilized perhaps it would have been found that the stimuli did not differ enough for significant results to occur.

### *Future Research*

Future research should seek the answer of what is the ‘ideal tourist experience’. It could examine different use of technology than the ones used in this study. For example, the use of holograms or the use of video only for tours.

The current study did not examine the familiarity the participants had with the technology. Looking at this may give future researchers a better idea of why or why not participants are able to become mentally immersed in the tour. This would substantially contribute to this research topic.

Future research could also look demographics or even socioeconomic status as a contributing factor. Other diverse groups may show differences that have not been examined.

### *Conclusion*

The purpose of this study was to fill a void in research linking immersion, transportation, and satisfaction to the tourist’s mediated experience. It also aimed more specifically to support existing research about sensation engagement and immersion, story congruent attitudes and transportation and satisfaction. This study was able to explore a new avenue of concept integration. However, it failed to confirm and support the existing research regarding immersion, transportation, and satisfaction in the mediated self-guided tour context. This study concludes that more in depth examination and research in this area needs to be done.

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## APPENDICES

# Appendix A

Page 1 of 1

Trans #:  
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**Cleveland State University**

## Institutional Review Board for Human Subjects in Research Application for Project Review

### I. Title Page

Date (mm/dd/yyyy): 02/24/2009

Transaction Number (office use only): 38424-BRAHNS

Project Title: WALK WITH ME: A TELEPRESENCE STUDY OF MEDIATED TOURS

#### PRINCIPAL INVESTIGATOR OR ADVISOR

Name: (Last, First): Bracken, Cheryl

Title: Professor

Department: COMMUNICATION

Campus Address: MU2

Electronic Mail Address: c.bracken@csuohio.edu

Office Phone: (216) 687-4512

Home Phone: (440) 266-155

Has the investigator completed the CITI course in the protection of human subjects? ☒ Yes ☐ No

#### CO-PRINCIPAL OR STUDENT INVESTIGATOR

Name: (Last, First): Gress, Erika

Title: Student

Department: Communication

Electronic Mail Address: e.gress@csuohio.edu

Office Phone: (216) 687-4638

Home Phone: (216) 973-6467

Has the investigator completed the CITI course in the protection of human subjects? ☐ Yes ☒ No

If this is a student investigator, please indicate status:

☐ Undergraduate

☒ Master level student

☐ Doctoral level student

and level of involvement in the research:

☐ Assisting Faculty Research

☒ Thesis

☐ Dissertation

☐ Classroom project: Class name/number \_\_\_\_\_

ADDITIONAL INVESTIGATORS? ☐ Yes ☒ No (If yes, please complete the "Additional CSU Investigators" form.)

#### PROPOSED PROJECT DURATION (research may not begin prior to IRB approval):

From (mm/dd/yyyy): 03/23/2009

To (mm/dd/yyyy): 06/05/2009 (date following anticipated approval; maximum one year later)

Please be aware that *data collected prior to approval or outside of authorized dates may not be used*. If your study (i.e. collection of data) will extend beyond the one year authorization, it is your responsibility to notify the IRB prior to expiration and request an extension.

\*\*\*Type of funding or support: None

#### FOR IRB USE ONLY

Initial Evaluation	Final IRB Action
<input type="checkbox"/> Approve as is	<input type="checkbox"/> Exempt Status: Project is exempt under 45 CFR 46.101 _____
<input checked="" type="checkbox"/> Requires Revision before evaluation or final action	<input checked="" type="checkbox"/> Expedited Review: Approval Category <u>9</u>
<input type="checkbox"/> Full IRB review required <u>03-19-09</u> <u>03-26-09</u>	<input type="checkbox"/> Regular IRB approval
	<input type="checkbox"/> Other: _____
Reviewer: <u>U. Borowski</u>	Signature: <u>[Signature]</u>
	Approval Date: <u>04-21-09</u>

Cleveland State University Office of Sponsored Programs and Research IRB  
Form updated 11/30/2007  
All other forms are obsolete  
dpo

**RECEIVED**  
FEB 27 2009  
OFFICE OF SPONSORED  
PROGRAMS & RESEARCH



# Cleveland State University

Office of Sponsored Programs and Research  
Institutional Review Board (IRB)

## Memorandum

To: Cheryl Bracken  
Communication

From: Blake Hodges  
Institutional Review Board  
Office of Sponsored Programs & Research

Date: 3 April 2009

Re: Results of IRB Review of your project number: 38424-BRA-HS  
Co-Investigator: Erika Gress  
**Entitled: Walk with me: A telepresence study of mediated tours**

The IRB has reviewed and approved your application for the above named project, under the category noted below. Approval for use of human subjects in this research is for one year from the approval date listed below. If your study extends beyond this approval period, please contact this office to initiate an annual review of the project. ***This approval expires at 11:59 pm on 3/31/2010.***

By accepting this decision, you agree to notify the IRB of: (1) any additions to or changes in procedures for your study that modify the subjects' risk in any way; and (2) any events that affect that safety or well-being of subjects.

Thank you for your efforts to maintain compliance with the federal regulations for the protection of human subjects.

---

**Approval Category:****Date: 04/1/2009**

Exempt Status: Project is exempt from further review under 45 CFR 46.101 (b)(2)

**X** Expedited Review: Project approved, Expedited Category 9

Regular IRB Approval

cc: Project file

*Mailing Address:* 2121 Euclid Avenue, PH-3rd Floor • Cleveland, Ohio 44115-2214  
*Campus Location:* Parker Hannifin Hall • 2258 Euclid Avenue • Cleveland, Ohio  
(216) 687-3630 • Fax (216) 687-9382

## Appendix B

### Focus group questions

My name is \_\_\_\_\_. Thank you for agreeing to participate in the focus group today. I will be asking you questions about vacation tours. There are various types of tours. Tours of cities, buildings and countries may be self guided, or guided. Self guided tours are when no person takes you on a tour. Guided tours are tours where a person that is a tour guide takes you on the tour and explains the artifacts or places to you. Your answers will help us gain a better understanding of how people take tours. Please answer them honestly and to the best of your ability. Also please be courteous of others and refrain from interrupting or talking over each other. The session will be video recorded and will last about 1 hour. To start let's go around the room and say your name and last vacation you took.

1. *Do you take tours? Why or why not?*
2. *If you take a tour, what motivates you to take it?*
3. *If you take a tour, do you take a guided or self-guided tour?*  
-does a person lead you around from place to place or a map or some form of technology?
4. *What do you wish to gain from taking a tour?*
5. *What would make you more likely to take a tour?*
6. *What types of information would you be interested in when going on a tour?*
7. *When you take a tour what is important to you to get from the tour? Why?*
8. *What was the best tour you have ever been on? What was it like? Why was it the best?*
9. *Have you taken a mediated tour? Do you know what a mediated tour is?*

Let me tell you briefly what a mediated tour is and give you an example. A mediated tour is a tour where technology is your guide. For example, instead of a tour guide taking a group of people around a museum, tourists would carry an iPod that would explain artifacts. This allows the individual to skip or have repeated certain parts of the tour and also allows them to change the order of the tour making it more tailored to the individual.

10. *Would you take a mediated tour? Why or why not?*
11. *If you have taken a mediated tour, what did you like about it? What did you not like about it?*

Thank you all again for participating. You have been very helpful.



## Appendix C

### Tour Script

Hello and welcome to The Highlights Tour of Euclid Avenue.

Please make your way to the corner of Euclid Avenue and 21<sup>st</sup> street.

The building you are exiting is Cleveland States Music building. It was add to the CSU campus in 1989. It is home to the Communication School as well as the School of Music. This building will also be your end destination.

During the tour please obey all traffic signals and be aware of traffic and your surroundings. If at anytime you must stop for a signal you may stop the audio so that it may be properly timed with you as you walk.

At the corner of Euclid Ave and 21<sup>st</sup> street please head left or to the east towards 22<sup>nd</sup> street. As you walk you will notice construction on your left. This will be the home of the new CSU student center. This facility will house all student services such as campus 411, the bursar's office as well as other things including student organizations.

As you come to the corner of Euclid and 22<sup>nd</sup> street please watch for cars. Cross 22<sup>nd</sup> street continuing east. To the left will be the main classroom building. Currently all of the main student service facilities are located here while the new student center is being built.

At the corner of Euclid and 24<sup>th</sup> street you will see Fenn Tower, built in 1929. Fenn tower is now a student dormitory however its original purpose was an exclusive country club for Cleveland's wealthiest. CSU acquired it and renovated it in 2006.

Now cross the street to the south side of Euclid Ave. Again watch for traffic and obey all signals.

Once on the south side of Euclid walk back towards 22<sup>nd</sup> Street. Mather Mansion will be on your left. Mather Mansion was one of many Mansions that lined Euclid. The area in the early 1900's was called Millionaire's row. It was once one of the wealthiest areas of Cleveland. The area had its own hole in one golf that was a popular spot for the wealthy. Mather Mansion is now owned by CSU and houses many offices such as the Dean of the School of Communication and the Graduate Assistant office. Mather Mansion is said to be haunted by the ghost of Samuel Mather, the original owner of the house. Strange happenings like doors opening and papers flying off shelves when no wind can be felt happen from time to time. Samuel Mather died of a freak accident in the house on the first floor near the original main entry.

As you continue walking past Mather Mansion and a few shops, Trinity Cathedral will be next. The 18<sup>th</sup> century Cathedral has served many functions such as a place to vote, a refuge for homeless as well as holding religious services.

Continue to walk over 22<sup>nd</sup> street. Another of CSU's student dormitories will be on your left. Along with Rascal house pizza, a popular spot for locals and students to grab a bite to eat.

Cross over 21<sup>st</sup> street continuing on past Johnny's Deli. Johnny's is a family owned deli that has been a staple on Euclid for many years. In front of Subway at the cross walk please cross over Euclid to the CSU campus.

Now you should be facing Cleveland Marshall Law. CSU's law school was established in 1969. It has produced many successful people such as Tim Russert, Louis Stokes, Carl Stokes. Who were all successful lawyers.

Walking eastward again the next building you will come to will be CSU's Music building. This concludes the tour of Euclid Ave. Thank you for taking the time to participate. Please proceed back to the second floor to return the ipod and take the survey.

## Appendix D

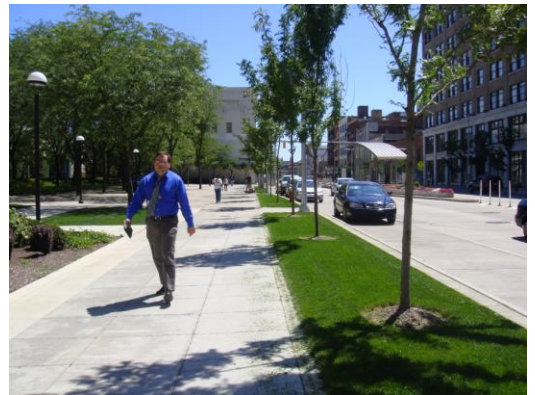
### Photos used for visual component











## Appendix E

### Informed Consent

Title: Walk with me: A presence study of mediated tours

Investigators: Erika Gress, School of Communication, (216) 687-4638

Dr. Cheryl Bracken, School of Communication, (216) 687-4512

We are exploring people's experience and reactions to taking mediated tours. In order to do this we will have you take a tour of a city and then answer questions about your experience. Each session will take no longer than 35 minutes. We are asking that you take the tour of your assigned place, which should take approximately 15 minutes, and then complete a 15-20 minute questionnaire. The questionnaire will be given to you as soon as you finish the tour.

The risk involved in this study is no greater than those of daily life. We want you to understand that you are free to stop participating at any time.

The data you provide will be recorded confidentially and your participation and any responses you give during the session will be held in the strictest confidence. A record of your participation will exist so that extra credit can be given, but your name will not be available to anyone other than the researchers and will be held in a secure location.

We welcome your questions about the study at any time. You can reach Erika Gress at (216) 687-4638, email: [e.gress@csuohio.edu](mailto:e.gress@csuohio.edu), or Dr. Cheryl Bracken at (216) 687-4512, email: [c.bracken@csuohio.edu](mailto:c.bracken@csuohio.edu). Your participation in this study is on a voluntary basis, and you may refuse to participate at anytime without consequence or prejudice.

If you have any questions about your rights as a research participant you may contact the Cleveland State University Institutional Review Board at (216)687-3630.

There are two copies of this letter. After signing them, keep one copy for your records and return the other one. Thank you in advance for your cooperation and support.

Please indicate your agreement to participate by signing below.

I am 18 years or older and have read and understood this consent form and agree to participate.

\_\_\_\_\_  
Signature: \_\_\_\_\_

Name: \_\_\_\_\_ (Please Print)

Date: \_\_\_\_\_

## Appendix F

### Questionnaire

**Using the lines provided please describe your expectations of what the tour will be like.**

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**Take a moment and answer the following question.**

When you take a tour what is important for you to take away from it?

- |    |    |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

**Stop. You will now take the tour. Please hand this sheet back to the researcher.**



**Please answer the following question by circling the answer that best corresponds with how you feel about the tour.**

The tour:

1. exceeded my expectations
2. met my expectation
3. was below my expectations

**Please answer the following questions by circling the number that best corresponds with what you felt while taking the tour.**

1. While I was listening to the narrative, I could easily picture the events in it taking place.

1	2	3	4	5	6	7
Not much at all						very much

2. While I was listening to the narrative, activity going on around me was on my mind.

1	2	3	4	5	6	7
Not much at all						very much

3. I could picture myself in the scene of the events described in the narrative.

1	2	3	4	5	6	7
Not much at all						very much

4. I was mentally involved in the narrative while listening to it.

1	2	3	4	5	6	7
Not much at all						very much

5. After finishing listening to the narrative, I found it easy to put it out of my mind.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not much at all very much

6. I wanted to learn more about the destination.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not much at all very much

7. I found my mind wandering while listening to the narrative.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not much at all very much

8. The events in the narrative have changed my attitude of Euclid Ave.

1                      2                      3                      4                      5                      6                      7

Not much at all very much

9. The narrative I just listened to was presented in story form.

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not much at all very much

10. How much did you experience a sense of being there?

1                    2                    3                    4                    5                    6                    7

Not much at all very much

11. How much did you feel as if you were inside the environment observing the events?

1                    2                    3                    4                    5                    6                    7

Not much at all very much

12. How much did the experience seem to transport you into the environment?

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not much at all very much

13. How much did it feel as if you visited another place from where you were?

1	2	3	4	5	6	7
---	---	---	---	---	---	---

Not much at all very much

14. How aware were you of events occurring in the real world around you?

1                      2                      3                      4                      5                      6                      7

Not much at all very much

15. How much did the visual aspects of the environment involve you?

1                      2                      3                      4                      5                      6                      7

Not much at all very much

16. To what extent did you feel like you were inside the environment?

1                      2                      3                      4                      5                      6                      7

Not much at all very much

17. To what extent did you feel immersed in the environment?

1	2	3	4	5	6	7
1	2	3	4	5	6	7

Not much at all very much

16. To what extent did you feel surrounded by the environment?

1	2	3	4	5	6	7
1	2	3	4	5	6	7

Not much at all very much

17. To what extent did you feel submerged in the environment?

1                      2                      3                      4                      5                      6                      7

Not much at all very much

18. Becoming extremely involved in a good book or movie is somewhat rare for me.

1                      2                      3                      4                      5                      6                      7

strongly disagree

strongly agree

**Now think about the narrator of the tour and circle the answer that best**

**corresponds with how you felt.**

19. The narrator was almost like a friend you see every day.

1                      2                      3                      4                      5                      6                      7

strongly disagree

strongly agree

20. The narrator made me feel comfortable, as if I was with a friend.

1                      2                      3                      4                      5                      6                      7

strongly disagree

strongly agree

21. The narrator was pleasant to listen to.

1                      2                      3                      4                      5                      6                      7

strongly disagree

strongly agree

**Please answers the following questions by circling the number that corresponds best with how you feel.**

24. Euclid Ave. has an old Mansion that is haunted.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

25. There are many places to eat on Euclid Ave.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

26. I would like to go to Euclid Ave.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

27. Euclid Ave. was once a wealthy area.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

28. I would recommend going to Euclid Ave. to anyone who was interested in taking a vacation in Cleveland.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

29. It is safe on Euclid Ave.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

30. I would consider going to Euclid Ave. sometime.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

31. I would never go to Euclid Ave.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

32. I freely chose the activities I do in my leisure time.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

33. The tour was very interesting to me.

1	2	3	4	5	6	7
Strongly disagree					Strongly agree	

34. I consider the tour to be a waste of time.

1	2	3	4	5	6	7
Strongly disagree					Strongly agree	

35. The tour was intellectually challenging.

1	2	3	4	5	6	7
Strongly disagree					Strongly agree	

36. The tour gave me a broader experience.

1	2	3	4	5	6	7
Strongly disagree					Strongly agree	

37. I learned things in my tour simply because I like learning them.

1	2	3	4	5	6	7
Strongly disagree					Strongly agree	

38. The tour increased my knowledge about the things around me.

1	2	3	4	5	6	7
Strongly disagree					Strongly agree	

39. The tour helped to satisfy my curiosity.

1	2	3	4	5	6	7
Strongly disagree					Strongly agree	

40. The narrator I met on the tour was friendly.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

41. I associate with people who enjoy doing similar leisure activities.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

42. The tour helped me to relax.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

43. The tour helped me to relieve stress.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

44. The tour contributed to my emotional well being.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

45. The tour helped me to relieve stress.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

46. The tour contributed to my emotional well being.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

47. The area or place where the tour took place was clean and fresh.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

48. The area or place where the tour went was interesting.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

49. The area or place of the tour was well designed.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

50. I enjoyed the tour of Euclid Ave.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

51. I had a feeling of serenity when taking the tour.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

52. I found the information in the tour interesting.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

53. I found the information in the tour helpful.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree



54. I found the tour easy to follow.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

55. I would take other tours like it.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

56. I want to know other places where I can take tours like the one today.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

57. I felt good when I took the tour.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

58. I will try to get others to take the tour with me.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

59. I felt taking the tour was helpful.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

60. I would pay to take the tour.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

61. I really got involved in the tour.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

62. It made me happy to take the tour.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

63. I will seek out additional information about the tour.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

64. I really thought about the tour when I was on it.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

65. I will talk about the tour with other people.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

66. I hated to be distracted while on the tour.

1                      2                      3                      4                      5                      6                      7

Strongly disagree

Strongly agree

**You're almost done! These last questions are about you. Again, all of your responses will be kept strictly confidential, so please answer as accurately and honestly as possible.**

67. Are you \_\_\_\_male OR \_\_\_\_female? (check one)

68. How old are you (in years)? \_\_\_\_\_

69. Are you an Ohio Resident? \_\_\_\_yes OR \_\_\_\_no (check one)

70. If you are an Ohio resident how long have you lived in Ohio? \_\_\_\_\_

71. Are you a resident of Cleveland?\_\_\_\_\_ yes OR \_\_\_\_no (check one)

72. Are you a resident of a Cleveland suburb? \_\_\_\_\_ yes OR no (check one)

73. What is your race?

____Asian	____Pacific Islander
____African American	____White
____Hispanic	____Other

74. How often do you go on vacation?

____ Never	____ Once every few months
____ Once every few years	____ Once a month
____ Once a year	____ More often than once a month

75. List the types of locations do you go to for vacation?

1.	4.
2.	5.
3.	6.

76. When you go on a vacation do you take a tour? \_\_\_\_ yes OR \_\_\_\_ no (check one)

77. If you answered no to 76. Please explain why.

---

---

---

78. Have you ever taken a virtual tour (i.e. on the computer, or a tour using technology as the main component)? \_\_\_\_ yes OR \_\_\_\_no (check one)

79. How many computers do you have access to?

____ none	____ 3-4
____ 1	____ 5 or more
____ 2 -3	

80. Do you own an mp3 player? \_\_\_\_ yes OR \_\_\_\_ no (check one)

81. If you answered yes to 80, how often do you use your mp3 player?

- |   |  |
|---|--|
| <input type="checkbox"/> once a year      | <input type="checkbox"/> few times a month |
| <input type="checkbox"/> every few months | <input type="checkbox"/> once a week       |
| <input type="checkbox"/> once a month     | <input type="checkbox"/> few times a week  |
|   | <input type="checkbox"/> every day         |

82. Please list the type of content you use your mp3 player for.

- |    |    |
|----|----|
| 1. | 4. |
| 2. | 5. |
| 3. | 6. |

83. How many hours do you spend reading books for fun (excluding class textbooks) in a typical week?

- |   |  |
|---|--|
| <input type="checkbox"/> 0 hours          | <input type="checkbox"/> 5 or 6 hours      |
| <input type="checkbox"/> Less than 1 hour | <input type="checkbox"/> 7 hours           |
| <input type="checkbox"/> 1 or 2 hours     | <input type="checkbox"/> More than 7 hours |
| <input type="checkbox"/> 3 or 4 hours     |  |

84. How many hours do you spend reading websites in a typical week?

- |   |  |
|---|--|
| <input type="checkbox"/> 0 hours          | <input type="checkbox"/> 5 or 6 hours      |
| <input type="checkbox"/> Less than 1 hour | <input type="checkbox"/> 7 hours           |
| <input type="checkbox"/> 1 or 2 hours     | <input type="checkbox"/> More than 7 hours |
| <input type="checkbox"/> 3 or 4 hours     |  |

85. How many hours do you spend watching television in a typical week?

- |   |  |
|---|--|
| <input type="checkbox"/> 0 hours          | <input type="checkbox"/> 5 or 6 hours      |
| <input type="checkbox"/> Less than 1 hour | <input type="checkbox"/> 7 hours           |
| <input type="checkbox"/> 1 or 2 hours     | <input type="checkbox"/> More than 7 hours |
| <input type="checkbox"/> 3 or 4 hours     |  |

**THAT CONCLUDES THE STUDY.**

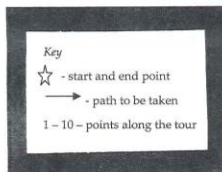
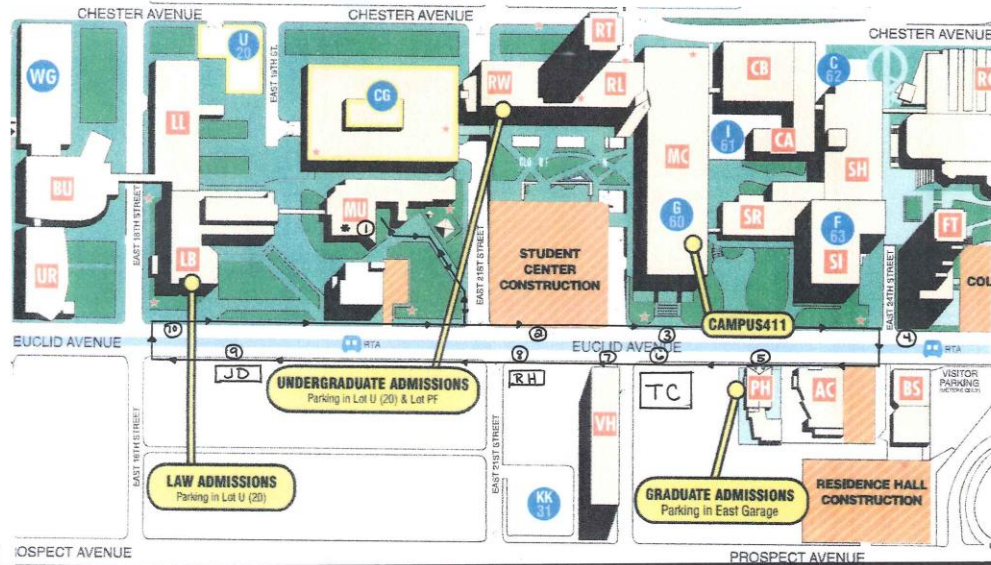
**THANK YOU VERY MUCH FOR PARTICIPATING!**

**PLEASE RETURN THIS SURVEY TO THE FRONT OF THE ROOM**

## Appendix G

### Highlights Tour of Euclid Avenue

Please follow the directions and read the corresponding information that accompanies each point.



Please make your way to the corner of Euclid Avenue and 21<sup>st</sup> Street.

**Point 1** - The building you are exiting is Cleveland States Music building. It was added to the CSU campus in 1989. It is home to the Communication School as well as the School of Music. This building will also be your end destination.

During the tour please obey all traffic signals and be aware of traffic and your surroundings.

At the corner of Euclid Ave and 21<sup>st</sup> Street please head left or to the east towards 22<sup>nd</sup> Street.

**Point 2** - As you walk you will notice construction on your left. This will be the home of the new CSU student center. This facility will house all student services such as campus 411, the bursar's office as well as other things including student organizations.

As you come to the corner of Euclid and 22<sup>nd</sup> Street please watch for cars. Cross 22<sup>nd</sup> Street continuing east.

**Point 3** - To the left will be the main classroom building. Currently all of the main student service facilities are located here while the new student center is being built.

Proceed to the corner of Euclid and 24<sup>th</sup> Street.

**Point 4** - At the corner of Euclid and 24<sup>th</sup> street you will see Fenn Tower, built in 1929. Fenn tower is now a student dormitory however its original purpose was an exclusive country club for Cleveland's wealthiest. CSU acquired it and renovated it in 2006.

Now cross the street to the south side of Euclid Ave. Again watch for traffic and obey all signals.

Once on the south side of Euclid walk back towards 22<sup>nd</sup> Street.

**Point 5** - Mather Mansion will be on your left. Mather Mansion was one of many Mansions that lined Euclid. The area in the early 1900's was called Millionaire's row. It was once one of the wealthiest areas of Cleveland. The area had its own hole in one golf that was a popular spot for the wealthy. Mather Mansion is now owned by CSU and houses many offices such as the Dean of the School of Communication and the Graduate Assistant office. Mather Mansion is said to be haunted by the ghost of Samuel Mather, the original owner of the house. Strange happenings like doors opening and papers flying off shelves when no wind can be felt happen from time to time. Samuel Mather died of a freak accident in the house on the first floor near the original main entry.

As you continue walking past Mather Mansion and a few shops

**Point 6** - Trinity Cathedral will be next. The 18<sup>th</sup> century Cathedral has served many functions such as a place to vote, a refuge for homeless as well as holding religious services.

Continue to walk over 22<sup>nd</sup> Street.

**Point 7** - Another of CSU's student dormitories will be on your left.

**Point 8** - Along with Rascal house pizza, a popular spot for locals and students to grab a bite to eat.

Cross over 21<sup>st</sup> Street continuing on past Johnny's Deli.

**Point 9** - Johnny's is a family owned deli that has been a staple on Euclid for many years.

In front of Subway at the cross walk please cross over Euclid to the CSU campus.

**Point 10** - Now you should be facing Cleveland Marshall Law. CSU's law school was established in 1969. It has produced many successful people such as Tim Russert, Louis Stokes, Carl Stokes. Who were all successful lawyers.

Walking eastward again the next building you will come to will be CSU's Music building.

This concludes the tour of Euclid Ave. Thank you for taking the time to participate. Please proceed back to the second floor to return the map and take the survey.

Appendix H  
Tables for Analyses

Table H1.

*Table of Descriptive Statistics for MANOVA.*

	Condition	Mean	Std. Deviation
Transportation	Audio Only	32.536	4.940
	Audio and Video	30.429	4.590
	Map	28.321	6.504
	Total	30.429	5.617
Worthwhile	Audio Only	5.039	1.126
	Audio and Video	4.518	1.127
	Map	4.211	1.271
	Total	4.589	1.212
Immersion	Audio Only	4.411	1.079
	Audio and Video	3.884	1.113
	Map	3.804	1.454
	Total	4.032	1.239